

cestral home, but it is more probable that it will find some conditions different. Environment will not make a change to suit the mollusk and hence if its residence is not to its liking the naiad will have to adapt itself to the residence or else retire from the field.

Then, too, there is a possibility that the two species will hybridize and produce one or more other forms or races. Hybridizing might wipe out either *cariosa* or *cohongoronta*, or it might wipe out both of them, replacing them by a race of mixed blood. Bearing a resemblance to each other close enough to suggest a common ancestry or a converging development and living now side by side in the same spot, it seems to the writer that a crossing of the two species will be not only possible but highly probable. Indeed, one of the specimens of *cohongoronta* collected in that spot may be a hybrid. Its anterior portion has the glossy, peculiar straw-colored periostracum of *cariosa*, while the other features of the shell are distinctly those of *cohongoronta*. It will be interesting and profitable to note the future history of the two species in this vicinity, especially as the specimens of *cohongoronta* in the U. S. National Museum (Cat. Nos. 219057 and 219058) will show the characters of the shell at the time of its first arrival and form a basis of comparison with the shells of future generations. The specimens of *cariosa* collected at the same time and place form catalogue number 219059.

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#### THE STATUS OF LOBOA BRUNOI VON IHERING.

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BY PAUL BARTSCH.

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In the "Nautilus" for February, 1917, vol. 30, on pl. 4, fig. 7, and in the number for March, 1917, pp. 121-122, Dr. H. von Ihering describes a new genus and species of landshell from the Island of Trinidad, as *Loboa brunoi*.

During a recent visit to Washington, Dr. Carlos Moreira, of Brazil, submitted a shell to me for determination. This specimen, which is in a subfossil state, also came from the Island

of Trinidad, off the coast of Brazil, in approximately latitude  $21^{\circ}$  S., longitude  $29^{\circ}$  W. Comparing it with the description published by Dr. von Ihering, I feel certain that it is the species described by him. In fact, I am not altogether sure but what this may be the same specimen described by Dr. von Ihering.

Unfortunately, the figure cited above is a mere outline figure, and rather poor at that, so much so in fact that one would not recognize the present shell were its status dependent upon the figure alone, but the description is positive. The rareness and isolated distribution of this species justifies rediagnosis and a good photographic figure, which are here presented. The shell will have to be known as *Bulimulus (Protylus) brunoi* von Ihering (Plate IV, fig. 7).

Shell very elongate-ovate, dingy white. The nepionic portion consists of not quite one turn, which is well rounded, and marked by slender, slightly protractively slanting axial riblets. The succeeding turns are well rounded, appressed at the summit, and separated by a somewhat constricted suture. They are marked by almost rib-like, decidedly retractively curved incremental elements and slender spiral lirations, the junctions of which form feeble tubercles. Base somewhat prolonged, moderately rounded, very narrowly perforated, marked by the continuation of the rib-like elements and spiral lirations, both of which agree in strength with those on the spire, but becoming more crowded on the anterior portion of the base. Aperture oval; posterior angle acute (outer lip fractured at the edge); inner lip slightly sinuous and narrowly reflected; parietal wall covered by a moderately thick callus.

The specimen, which may be the type, belongs to the National Museum of Brazil. It has 7.3 whorls, and measures: altitude, 19.5 mm.; greater diameter, 8.3 mm.